

CLAIMS

What is claimed is:

1. A vehicular adapter system having wireless local area network (WLAN) capabilities, the adapter system comprising:
an adapter configured to plug into a cigarette lighter socket of a vehicle, the
5 adapter having a local area network (WLAN) module contained therein, the
adaptor being configured to electrically couple the WLAN module to a
wireless communication device, the module operable to communicate with
other WLAN-enabled devices.

2. The system of claim 1, wherein the adapter is operable to power one or more of the WLAN module and the wireless communication device.

3. The system of claim 1, wherein the adapter couples audio signals from the
5 wireless communication device to the WLAN module.

4. The system of claim 1, further comprising a head unit coupled to loudspeakers in a vehicle, the head unit including a second WLAN module operable to wirelessly communicate with the adapter WLAN module.

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5. The system of claim 4, wherein the adapter electrically couples audio signals from the wireless communication to the adapter WLAN module, and wherein the adapter WLAN module wirelessly transmits the audio signals to the second WLAN module whereupon the head unit transfer the audio signals from the second WLAN
15 module to the vehicular loudspeakers.

6. The system of claim 4, wherein the head unit is coupled a microphone in the vehicle, and wherein the second WLAN module wirelessly transmits audio signals from the microphone to the adapter WLAN module, and wherein the adapter WLAN
20 module transfers the audio signals from the adapter WLAN module to the wireless communication device.

7. The system of claim 1, wherein the WLAN module is operable under a Bluetooth transceiver protocol.

8. The system of claim 1, wherein the WLAN module is operable to transmit data from the wireless communication device.

9. A vehicular adapter system having wireless local area network (WLAN) capabilities, the adapter system comprising:

- an adapter configured to plug into a cigarette lighter socket of a vehicle, the adapter having a wireless local area network (WLAN) module contained
5 therein, the adaptor being configured to electrically couple the WLAN module to a wireless communication device, the module operable to communicate with other WLAN-enabled devices;
- a second WLAN module embedded in a head unit of the vehicle, the second WLAN module operable to wirelessly communicate with the adapter WLAN
10 module; and
- at least one audio transducer coupled to the head unit.

10. The system of claim 9, wherein the adapter is operable to power the WLAN module and to power and charge the wireless communication device.

11. The system of claim 9, wherein the adapter electrically couples audio signals
5 from the wireless communication device to the WLAN module.

12. The system of claim 9, wherein the at least one audio transducer includes at least one loudspeaker, wherein the adapter electrically couples audio signals from the wireless communication to the adapter WLAN module, and wherein the adapter
10 WLAN module wirelessly transmits the audio signals to the second WLAN module whereupon the head unit transfers the audio signals from the second WLAN module to the at least one vehicular loudspeaker.

13. The system of claim 9, wherein the at least one audio transducer includes a
15 microphone, wherein the second WLAN module wirelessly transmits audio signals from the microphone to the adapter WLAN module, and wherein the adapter WLAN module transfers the audio signals from the adapter WLAN module to the wireless communication device.

14. The system of claim 9, wherein the WLAN modules are operable under a Bluetooth transceiver protocol.

15. The system of claim 9, wherein the WLAN modules are operable to transmit data between the wireless communication device and the head unit.

16. A vehicular adapter system having wireless local area network (WLAN) capabilities, the adapter system comprising:

- 5 an adapter configured to plug into a cigarette lighter socket of a vehicle, the adapter having a wireless local area network (WLAN) module contained therein, the adapter is operable to power both the WLAN module and the wireless communication device, the adaptor being configured to electrically couple the WLAN module to a wireless communication device, the module operable to communicate audio signals from the wireless communication device to other WLAN-enabled devices; and
- 10 a second WLAN module embedded in a head unit of the vehicle, the head unit coupled to at least one loudspeaker and a microphone, the second WLAN module operable to wirelessly communicate with the adapter WLAN module.

17. The system of claim 16, wherein the WLAN modules are operable to transfer audio signals from the wireless communication device to the adapter WLAN module to the second WLAN module of the head unit to at least one loudspeaker and audio signals from the microphone of the head unit to the second WLAN module to the
5 adapter WLAN module to the wireless communication device.

18. The system of claim 16, wherein the WLAN modules are operable under a Bluetooth transceiver protocol.

19. The system of claim 16, wherein the WLAN modules are operable to transmit data between the wireless communication device and the head unit.